

DERWENT-ACC- 2003-431440

NO:

DERWENT- 200341

WEEK:

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TITLE: Method for recovery of waste cobalt-containing catalyst  
for Fischer-Tropsch synthesis

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PRIORITY-DATA: 2002CN-0130057 (August 19, 2002)

**PATENT-FAMILY:**

| PUB-NO       | PUB-DATE       | LANGUAGE | PAGES | MAIN-IPC    |
|--------------|----------------|----------|-------|-------------|
| CN 1401427 A | March 12, 2003 | N/A      | 000   | B01J 023/75 |

**APPLICATION-DATA:**

| PUB-NO      | APPL-DESCRIPTOR | APPL-NO        | APPL-DATE       |
|-------------|-----------------|----------------|-----------------|
| CN 1401427A | N/A             | 2002CN-0130057 | August 19, 2002 |

INT-CL (IPC): B01J023/75, C01G051/00

ABSTRACTED-PUB-NO: CN 1401427A

**BASIC-ABSTRACT:**

NOVELTY - Recovering the used Co-containing catalyst used in Fischer-Tropsch synthesis includes reducing at 800-1200 deg.C and 0.1-2 MPa in H<sub>2</sub>/N<sub>2</sub> mixed gas flow at 1000-5000 /h for 4-16 hr, adding diluted nitric acid, dissolving, filtering, adding solution of sodium hydroxide to obtain precipitate of cobalt hydroxide.

DETAILED DESCRIPTION - Recovering the used Co-containing catalyst used in Fischer-Tropsch synthesis includes reducing at 800-1200 deg.C and 0.1-2 MPa in H<sub>2</sub>/N<sub>2</sub> mixed gas flow at 1000-5000 /h for 4-16 hr,

adding diluted nitric acid, dissolving, filtering, adding solution of sodium hydroxide to obtain precipitate of cobalt hydroxide, filtering, adding diluted nitric acid, dissolving and evaporation crystallizing to obtain Co(NO<sub>3</sub>)<sub>2</sub>·6H<sub>2</sub>O.

ADVANTAGE - Its advantages are high Co recovery rate (more than 91%), high purity (more than 94%) and low cost.

CHOSEN- Dwg.0/0  
DRAWING:

TITLE-TERMS: METHOD RECOVER WASTE COBALT CONTAIN CATALYST FISCHER  
TROPSCH SYNTHESIS

DERWENT-CLASS: E31 J04

CPI-CODES: E11-Q01; E35-V; J04-E04;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2003-114244